

CLAIMS:

1. An MRI apparatus comprising:
 - an MR signal acquiring device for acquiring MR signals;
 - 5 a window-processing device for window-processing the MR signals using a window function that has a value less than one at a center and in its proximate region in a k-space and on a periphery and in its proximate region in the k-space, and, between the regions in which the window function has a value less than one, has a value larger than that in the regions in which the window function has a
 - 10 value less than one; and
 - a Fourier-transformation processing device for applying Fourier-transformation processing to the window-processed MR signals to obtain an MR image.
- 15 2. An MRI apparatus comprising:
 - an MR signal acquiring device for acquiring MR signals;
 - a window-processing device for window-processing the MR signals using a window function that has a value less than one at a center of a k-space, first increases to a value C equal to or more than one as it goes farther from the center,
 - 20 remains at C for a certain duration, then passes to one, and decreases to a value less than one as it goes from near a periphery to the periphery of the k-space; and
 - a Fourier-transformation processing device for applying Fourier-transformation processing to the window-processed MR signals to obtain an MR image.
- 25 3. The MRI apparatus of claim 2, wherein the window function is a function using a Gaussian function in the region in which the window function increases to C.
- 30 4. The MRI apparatus of claim 2, wherein the window function is

a function using a Fermi-Dirac function in the region in which the window function decreases to a value less than one.

5. An MRI apparatus comprising:

5 an MR signal acquiring device for acquiring MR signals;
a window-processing device for window-processing the MR signals using a window function that has a value less than one at a center of a k-space, first increases to one as it goes farther from the center, remains at one for a certain duration, and decreases to a value less than one as it goes from near a periphery
10 to the periphery of the k-space; and
a Fourier-transformation processing device for applying Fourier-transformation processing to the window-processed MR signals to obtain an MR image.

15 6. The MRI apparatus of claim 5, wherein the window function is a function using a Gaussian function in the region in which the window function increases to one.

7. The MRI apparatus of claim 5, wherein the window function is
20 a function using a Fermi-Dirac function in the region in which the window function decreases to a value less than one.

8. The MRI apparatus of any one of claims 1, 2 and 5, further comprising:

25 a three-dimensional data generating device for generating three-dimensional data from MR images produced for a plurality of sequential slices; and
a MIP-processing device for conducting MIP processing on the three-dimensional data to produce a projection image.